

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
3 March 2005 (03.03.2005)

PCT

(10) International Publication Number
WO 2005/018696 A1

(51) International Patent Classification⁷:
27/54, 29/04, 31/10, 31/16, A61F 2/06

A61L 27/34,

(81) Designated States (*unless otherwise indicated, for every kind of national protection available*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(21) International Application Number:

PCT/GB2004/003547

(22) International Filing Date: 18 August 2004 (18.08.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0319461.0 19 August 2003 (19.08.2003) GB
0325060.2 27 October 2003 (27.10.2003) GB

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **POLY-BIOMED LIMITED** [GB/GB]; 67 Milton Park, Abington, Oxon OX14 4RX (GB).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **AI-LAMEE, Kadem** [GB/GB]; Polybiomed Limited, Sheffield Technology Park, 60 Shirland Lane, Sheffield S9 3SP (GB). **LOTT, Martyn** [GB/GB]; Polybiomed Limited, Sheffield Technology Park, 60 Shirland Lane, Sheffield S9 3SP (GB).

(74) Agents: **TOLLETT, Ian et al.**; Williams Powell, Morley House, 26-30 Holborn Viaduct, London EC1A 2BP (GB).

Published:

- with international search report
- with amended claims

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: POLYMERIC DRUG RELEASE SYSTEM FOR MEDICAL DEVICES

(57) Abstract: A coating composition comprising a mixture of a poly(vinylacetal-co-vinylalcohol-co-vinylacetate) and a poly(vinyl pyrrolidone-co-vinyl acetate) allows a medical device to be coated with a first layer containing a first bioactive (such as rapamycin) and a second layer containing a second bioactive (such as dexamethasone) for release *in vivo* at different release rates.



WO 2005/018696 A1